



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200
Fax 613 632-5246

646.3015

Job Sheet 186717



Part No: 646.3015

Job Qty: 46 ea

Part Name: Blade



Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 11/20/18

Job Tracking No:

Due Date: 12/28/18

Created By: Marie Lajeunesse

Type: SOLD

Description:

Note: DWG REV N/C SHEET 12 IPP REV:A NEW ISSUE 12/11/09 JFS VERIFY BY: JLM

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup Hrs	Run Hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	46 Ea	12/28/18	12/28/18	0.00	0.00	Start Up Machining-1		mm 18/12/11
100	Bandsaw	46 pcs	12/28/18	12/28/18	0.00	0.72	Bandsaw1		"
110	CNC Vertical Machining	46 pcs	12/28/18	12/28/18	0.18	57.72	HAAS1-1		"
120	QC	46 pcs	12/28/18	12/28/18	0.00	0.00	QC2 Machining-1		"
130	QC	46 pcs	12/28/18	12/28/18	0.00	0.00	QC8 Machining-1		"
140	Outsource	46 pcs	12/28/18	12/28/18			MEI001-VC	15	A. 19-01-10
150	Packaging	46 pcs	12/28/18	12/28/18	0.00	0.00	Packaging2		SC 19-01-10
155	QC	46 pcs	12/28/18	12/28/18	0.00	0.00	QC6		JAN 2 2 2019
160	SprayPaint	46 pcs	12/28/18	12/28/18	0.00	1.49	Spray Paint		AS 19-1-28
165	Outsource	46 pcs	12/28/18	12/28/18			ATE003-VC	5	NR
170	QC	46 pcs	12/28/18	12/28/18	0.00	0.00	QC14		SC 19-01-10
180	Packaging	46 pcs	12/28/18	12/28/18	0.00	0.00	Packaging3-1		MAR 1 2019
190	QC21-SA	46 Ea	12/28/18	12/28/18	0.00	0.00	QC21		MAR 1 2019

Part Op 100 - Cut Blank at 6.580"

Descriptions: 110 - 1-Machine per folio FB150

140 - FINISH: HEAT TREAT TO 58-62 RC ROCKWELL HARDNESS As per dwg 646.3000 PART ARE MADE FROM AISI A2 TOOL STEEL DETAIL OF C OF C REQUIRED

160 - PRIME AS PER DWG, SEE NOTE #4

180 - ***IDENTIFY AS PER APICAL MPP-120 BY STAMPING P# AND REV***

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
MSTEEL-A2-B0.500X1.250	AISI A2 Tool Steel Bar, 0.500 X 1.250	25.2540 ft (.549 ea)	90-Start up Operation	S132658

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
90-Start up Operation	MSTEEL-A2-B0.500X1.250	25	37	0



Container No: S136629



Part: 646.3015

Job No: 186717

Serial No/Batch: S136629

Revision:

Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
CANADA
TEL: 1 613 632-5200
Email: sales@dartaero.com
www.dartaerospace.com

Specifications

Limits	Type	Special Comments
0.380		
0.370		

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / U

QA Closed: _____ Date: _____

Work Order: _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	Skid-tube ☐
Part No. _____		Machining ☐
NCR No. _____		Thermoforming ☐
		Large Fab ☐

Date :	Step #:	QTY Effective
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Description Work Order Deviation

QC / QA Coordinator
Approval

Root Cause				FAULT CATEGORY			
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐		
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐		
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐		
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐		
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐		
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐		
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐		
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐		
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐		
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐		
Past Expiry Date ☐	Manufacturing Process ☐	OTHER :					
Misidentified ☐	Past Due ☐						

2	Blade	0.177inches + 0.005 - 0.000	0.182 0.177	Diameter
3	Blade	0.940inches ± 0.010	0.950 0.930	
4	Blade	0.524inches ± 0.005	0.529 0.519	
5	Blade	0.240inches ± 0.020	0.260 0.220	
6	Blade	0.125inches ± 0.005	0.130 0.120	Radius
7	Blade	45.000Degrees ± 0.500	45.500 44.500	
8	Blade	0.524inches ± 0.005	0.529 0.519	
9	Blade	0.690inches ± 0.002	0.692 0.688	
10	Blade	1.250inches ± 0.002	1.252 1.248	
11	Blade	4.684inches ± 0.005	4.689 4.679	
12	Blade	6.450inches ± 0.010	6.460 6.440	
13	Blade	0.325inches ± 0.005	0.330 0.320	
14	Blade	30.000Degrees ± 0.500	30.500 29.500	

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DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS <table border="0"> <tr> <td>Skid-tube ☐</td> <td>Cross tube ☐</td> <td>Water Jet ☐</td> <td>Engineering ☐</td> </tr> <tr> <td>Machining ☐</td> <td>Small Fab ☐</td> <td>Prod. Eng. Coord. ☐</td> <td>Quality ☐</td> </tr> <tr> <td>Thermoforming ☐</td> <td>Finishing ☐</td> <td>Rec/Store/Packaging ☐</td> <td>Other ☐</td> </tr> <tr> <td>Large Fab ☐</td> <td>Composite ☐</td> <td>Supplier ☐</td> <td></td> </tr> </table>						Skid-tube ☐	Cross tube ☐	Water Jet ☐	Engineering ☐	Machining ☐	Small Fab ☐	Prod. Eng. Coord. ☐	Quality ☐	Thermoforming ☐	Finishing ☐	Rec/Store/Packaging ☐	Other ☐	Large Fab ☐	Composite ☐	Supplier ☐																																																	
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Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER

PO042230



Supplier: MEI001-VC
Metcor Inc.
560 Boul. Arthur Sauve
Saint-Eustache
QC
J7R 5A8 Canada
Phone: 450 473 1884
Fax: 450 491 5498

PO No: PO042230
PO Date: 1/10/19
Due Date: 2/1/19
Purchase Order
Revision:
Revision Date:
Ship-To Contact: Phone:

Ship To: 1270 Aberdeen Street
Hawkesbury
ON
K6A 1K7 Canada
Phone: 613-632-5200

Via: Ground
Pymt Terms: Net 30
Freight Terms:
Special Comments:

Items

Line Item	Job	Part	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
1	186717	646.3015	Blade FINISH: HEAT TREAT TO 58-62 RC ROCKWELL HARDNESS As per dwg 646.3000 PART ARE MADE FROM AISI A2 TOOL STEEL DETAIL OF C OF C REQUIRED	Firmed	-	2/1/19	46 pcs	0 pcs	46 pcs	\$4.9090909/pcs	\$225.82
2	187495	646.3013	Blade ISSUE P/O: FINISH: HEAT TREAT TO 58-62 RC ROCKWELL HARDNESS As Per Dwg 646.3000 PART ARE MADE FROM AISI A2 TOOL STEEL	Firmed	-	2/1/19	20 pcs	0 pcs	20 pcs	\$4.9090909/pcs	\$98.18
Grand Total:											\$324.00



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER

PO042230



Order Notes

Procurement Quality Clauses

A005 right of entry
A012 chemical and physical test report
A016 personnel qualification
A017 raw material identification (as applicable)

A022 Apical Processing
A024 process certifications
A026 certification of material conformance

A041 quality management system
A042 dart notification by supplier
A043 retention of quality documents

A048 counterfeit parts avoidance, detection, mitigation and disposition program

A049 supplier awareness

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Plex 1/10/19 1:16 PM dart.tsimiklis.chrisoula

METCOR INC.

560 BOUL. ARTHUR-SAUVÉ
ST-EUSTACHE, QC J7R 5A8
Tel: 450-473-1884 / Fax: 450-491-5498

Reçu de livraison

Delivery Receipt

BON DE TRAVAIL Order	EXPÉDITEUR Shipper ID	BON D'EXPÉDITION Shipper
333268	1	133972

EXPÉDITION COMPLÈTE / Shipped Complete

CLIENT /Customer 215

DART AEROSPACE
1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
Ph: 613-632-5200
Fax: 613-632-1053



LIVRÉ À /Shipped To

DART AEROSPACE
1270 ABERDEEN
HAWKESBURY, ON K6A 1K7
Ph: 613-632-5200
Fax: 613-632-1053

COMMANDE DU CLIENT Customer PO	BON DE LIVRAISON DU CLIENT Customer Shipper No.	TYPE DE MATÉRIEL Material Type	DATE DE LA COMMANDE Order Date	TRANSPORTEUR Carrier
042230 ✓		A2	2019/1/11	CLIENT

QUANTITÉ Quantity	No. PIÈCE / Part No.	NOM DE LA PIÈCE / Part Name	DESCRIPTION DE LA PIÈCE Part Description	POIDS Weight
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66 646,3015 & 646,3013 ✓
BLADES 46x 29x
JOB # 186717 & 187495
26,

1 BOITE DE CARTON EPS

TYPE DE CONTENEUR Container Type	# DE CONTENEURS # Of Containers	COMMENTAIRES CONTENEUR Container Comments
BC EPS	1	

DAS
38
9-89

EXPÉDIÉ PAR: Shipped by:	
-----------------------------	--

QUANTITÉ EXPÉDIÉE / Quantity Shipped : 66

POIDS EXPÉDIÉ / Weight Shipped : 26,00

QUANTITÉ RESTANTE / Quantity Remaining : 0

POIDS RESTANT / Weight Remaining : 0,00

APPROUVÉ

QUANTITÉ EXPÉDIÉE / Quantity Shipped: 66

POIDS EXPÉDIÉ / Weight Shipped : 26,00

Signature:

Date:

EXPÉDIÉ LE / Shipped On : 2019/01/21

METCOR INC.

560 BOUL. ARTHUR-SAUVÉ, ST-EUSTACHE, QC, J7R 5A8

Tél.: 450-473-1884

Télécopieur / Fax administration: 450-491-5498

Télécopieur / Fax production: 450-491-6454

Certificat de Conformité Certificate of Compliance

BON DE TRAVAIL order	CHARGEMENT load
333268	1

CLIENT / customer 215

DART AEROSPACE

1270 ABERDEEN

HAWKESBURY

ON K6A 1K7

LIVRÉ À / shipped to:

DART AEROSPACE

1270 ABERDEEN

HAWKESBURY

ON K6A 1K7

1

COMMANDE DU CLIENT customer po	CLASSIFICATION PIECE part classification	MATÉRIEL material	MAÎTRE D'OEUVRE prime contractor	PROGRAM
042230 ✓	N/A	A2		

SPÉCIFICATIONS DU PROCÉDÉ processing specifications

VAC HARDEN

HARDEN AND TEMPER

EXIGENCE / requirement	SPÉCIFICATIONS / specified	TESTS EXÉCUTÉS / performed	RÉSULTATS DE TESTS / results
HARDNESS	58 - 62 HRC	11	59 - 61 HRC

QUANTITÉ quantity	POIDS weight	DESCRIPTION DES PIÈCES parts description
66	26	846,3015 & 846,3013 ✓ BLADES 46 X 20 X JOB # 186717 & 187495 1 BOITE DE CARTON EPS

COMMENTAIRES / comments

APPROUVÉ par / Approved by:

DATE: 2019-01-20

Pierre Piché
Chief Inspector



APPROUVÉ